CHAPTER 10
INVESTIGATIVE DERIVED WASTE

10-1. Introduction.

a. This chapter discusses the types of investigative derived waste (IDW) encountered on RCWM sites, characterization procedures, and management procedures. Figure 10-1 illustrates the IDW management process.

b. IDW may consist of anything generated during a site investigation or removal action that cannot be reused or recycled. Some media must be managed as IDW until it has been fully characterized. The characterization may determine that the media is suitable for reuse.

10-2. Soil.

a. Soil. Soil may be generated during a project in the form of environmental samples, drill cuttings or excavated soil. Characterization of soil generated during a project is required whenever there is historical, visual or other detectable evidence that contamination may be present. If monitoring indicates an airborne hazard, soil should be containerized to prevent exposure to the contamination. If monitoring does not indicate an airborne hazard, soil may be stockpiled in a way to minimize spread of contamination until characterization has been completed.

b. Characterization. Large volumes of soil are generally characterized by analyzing composite samples. Composite samples for IDW characterization for chemical agent are environmental samples and will undergo the same described in Chapter 9 of this document. The number of composite samples required to characterize a given volume of soil is generally site-specific due to local laws and regulations. When multiple types of contamination are suspected, characterization should be prioritized based on hazard level, beginning with the greatest hazard level. If chemical agent contamination is suspect, soil samples should be analyzed for chemical agent by a chemical surety laboratory prior to any other type of analysis. If a sample analysis is positive for chemical agent, no additional type of analysis will be conducted. Soil contaminated with chemical agent will be classified as hazardous waste and managed in accordance with CERCLA, RCRA, and other environmental laws and regulations as appropriate. Soil with HTRW contamination exceeding the site-specific action levels will also be classified as hazardous waste and managed accordingly. Soil determined to be “clean” will be disposed of on-site.

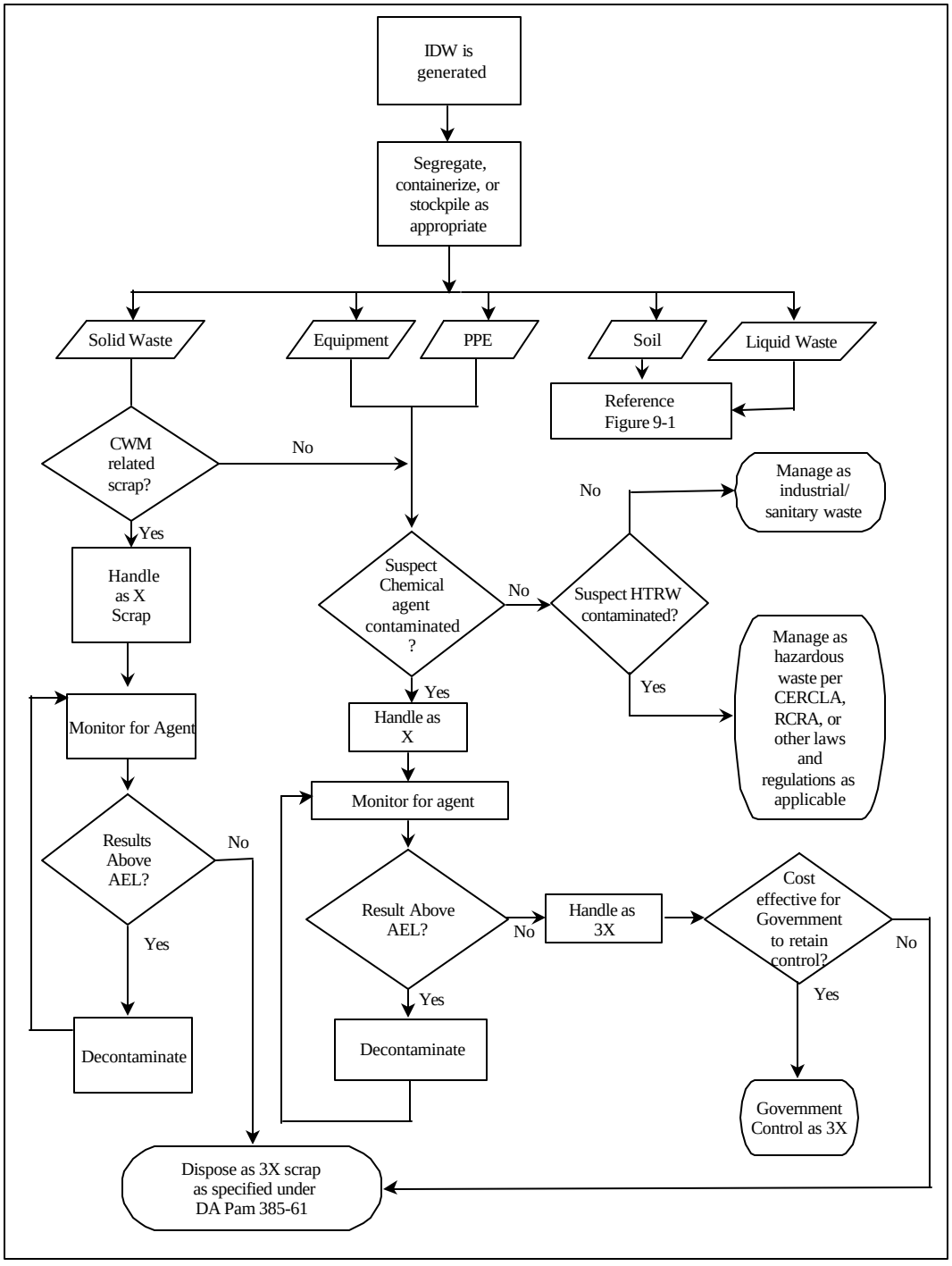

Figure 10-1. IDW Management Process

c. Decontamination and Disposal. Soil contaminated with chemical agent will be decontaminated and disposed of in accordance with DA Pam 385-61. When soil is contaminated with chemical agent and the AEL is exceeded, it will be decontaminated prior to off-site shipment. The preferred method of disposal is by incineration by an approved incinerator. Soil may be disposed with specific approval from the MACOM in an EPA approved landfill or under an authorized state RCRA program for hazardous waste disposal.

10-3. Liquid Waste.

a. Liquid waste may be generated during a project in the form of environmental samples, drilling fluids, and/or decontamination water. Liquid waste will be containerized and managed as IDW until characterization is complete.

b. Characterization. Liquid waste will be characterized by analyzing representative samples of the generated waste for any suspected contamination. Chemical agents generally breakdown in water to less hazardous byproducts. However, if chemical agent is suspect, the environmental sampling procedures described in Chapter 9 of this document will apply.

c. Disposal. Liquid waste which is determined to have contamination levels above the site-specific action levels will be classified as hazardous waste and managed in accordance with CERCLA, RCRA, and other environmental laws and regulations as appropriate.

10-4. Solid Waste.

a. Solid waste or scrap may be generated during a project in the form of recovered debris (e.g., metal, glass, wood) resulting from former site activities. All recovered scrap will be managed as IDW; however, scrap should be segregated and managed based on possible contamination until it has been characterized.

b. Characterization.

(1) OE-related scrap. OE-related scrap must be visually inspected to determine if an explosive hazard is present. If present, the explosive hazard must be mitigated prior to disposal. All OE-related scrap must be certified to be free of an explosive hazard prior to disposal.

(2) Scrap suspected to be contaminated with chemical agent must be monitored to determine if contamination is above the AEL. Scrap that should be considered suspect include materials known to have been used for RCWM operations, materials known to have been exposed to chemical agent, and materials that have been in direct contact with other media determined to be contaminated with chemical agent. If agent contamination is above the AEL, surface decontamination in accordance with DA Pam

385-61 is required. If agent contamination is below the AEL or when an item has been decontaminated to below the AEL, the scrap must be classified as 3X material.

(3) Scrap that has other indications that it may be contaminated with HTRW (e.g., biological waste, visual contamination, air monitoring indicators) will be managed as a hazardous waste.

c. Disposal. Scrap contaminated or suspected to be contaminated with chemical agent or HTRW will be classified as hazardous waste and managed in accordance with CERCLA, RCRA, and other environmental laws and regulations as appropriate. All 3X material will be disposed of in accordance with DA Pam 385-61. Scrap that is determined to be free of contamination may be disposed of in a sanitary or industrial landfill. Whenever possible, scrap that is uncontaminated will be recycled.

10-5. Personal Protective Equipment (PPE).

a. PPE is a generated waste when it is consumable, requiring disposal after its use is finished or when it becomes contaminated with chemical agent or HTRW and decontamination of the PPE is not possible or cost effective. When it is cost effective to do so, chemical agent contaminated PPE can be decontaminated to 3X levels and reused. There are exceptions to this reuse however, property that is determined to be 3X must remain under the control of the Federal Government in accordance with DA Pam 385-61.

b. Decontamination and Disposal. PPE that is contaminated with chemical agent must be monitored to determine if contamination is above the AEL. If agent contamination is above the AEL, surface decontamination in accordance with DA Pam 385-61 is required. PPE contaminated or suspected to be contaminated with chemical agent or HTRW will be classified as hazardous waste and managed in accordance with CERCLA, RCRA, and other environmental laws and regulations as appropriate. All 3X material will be disposed of or managed in accordance with DA Pam 385-61. PPE that has not been in contact with agent liquid or vapor may be disposed of in a sanitary or industrial landfill.

10-6. Equipment Disposition.

a. Equipment is classified as either consumable or durable goods. Some examples of consumable goods are PPE and sampling equipment. Heavy equipment is an example of durable goods that is utilized on RCWM sites.

b. Equipment contaminated with agent requires disposition after its intended use is completed either through disposal or reuse. When cost effective to do so, chemical agent contaminated equipment can be decontaminated to the 3X levels and reused. However, equipment classified as 3X must remain under the control of the Federal Government in accordance with DA Pam 385-61.